

AQS Users,

AQS will be modified to implement the new "Exceptional Event Rule" (EER) which became effective May 21, 2007. Let me start by listing all of the expected system changes and then describe each in more detail.

The expected AQS system changes include:

1. Define the new qualifier codes needed by the regulation.
2. Change the AQS database to store the new information.
3. Change software to process the new codes and information.
4. Develop a new report for retrieving the detailed qualifier information.
5. Implementation

1. Define the new qualifier codes

The first step was to evaluate/redefine the new flags which will be available for use. This work was done by the group that developed the EER with coordination and agreement with Air Program Managers in the Regional Offices.

AQS currently distinguishes between raw data qualifier types as "exceptional event" and "natural event" flags. These qualifier types will change and some "events" will be removed/replaced and all new codes will be assigned.

The new code structure will allow for 2 different qualifier types: (1) informational and (2) exclusion. The informational (qualifier type = INFORM) will be available for any pollutant to document an event that might have an influence on the magnitude of the reported value. The exclusion (qualifier type = REQEXC) will be available only for ozone, PM10, and PM2.5 to identify values that the submitting agency will request exclusion from the design value process. The agencies are required to provide additional information documenting the REQEXC qualifiers that includes comments for each raw data value and a web address where the event documentation is stored.

The new codes are listed in the attachment (New Qualifier.xls) and are now available for use in reporting data. The INFORM qualifiers is available for all parameters. The file, REQEXC PARA.xls, lists the flags currently available for requesting exclusion for ozone, PM10, and PM2.5. There will be a period of time beginning now when both the current and these new codes will be available for use. When the system changes have been completed and before the implementation phase begins, the old codes will become invalid for all data reporting. Users should begin early to transition to these new codes.

2. Change the AQS database to store the new information

The new information to be stored includes:

- (a) New qualifier types and codes which have been added to existing database tables. These codes are currently stored for each data value, but a date stamp will be added for when the code is added to the data value.
- (b) Informational comments can currently be stored for each raw data value. These comments also are time stamped to indicate when entered.
- (c) The web address where the documentation is stored will need to be added to the database.

3. Change the software to process the new codes and information.

The software changes include:

- (a) Develop a process to simplify entry of comments/web address for multiple data values.

- (b) Modify the concurrence process so only REQEXC flags can be flagged with concurrence.
- (c) Modify the summary calculations so that rather than the seven summary records currently computed based on qualifier type and concurrence, calculate just three records: (1) no potentially excludable events included (computed for all data without REQEXC flags), (2) REQEXC flagged values included (whether or not concurred), (3) only concurred REQEXC flagged values omitted.
- (d) Change current reports to display the new summary records being computed and determine the default record listed.
- (e) Modify maintain raw data to input and/or display the web address and to go to the specific supporting documentation for review.

4. Develop a new retrieval to list the data flagged, the comments, and the web address. This report will list any flags specified including QA flags as well as the new types.

5. Implementation

- (a) Stop accepting the old exceptional and natural event flags. This is not dependent on the software being completed and will be announced well in advance of final implementation so please begin the conversion process for your agency.
- (b) Convert from old to new flags where there is a one to one match. If there is not a one to one match, just change the qualifier type when possible to reduce the number of records created.
- (c) Recompute summary records to stop computing the several different records.

Please submit any questions or comments to me by January 15 so they can be considered in the final project design. Please let me know if you anticipate any problem converting data reporting from old to new qualifier codes by June 2008.

Thanks,
Jake Summers
National Air Data Group
OID/OAQPS/OAR/EPA
C339-04
Research Triangle Park, NC 27711
(919) 541-5695 (Phone)
(919) 541-7674 (Fax)
summers.jake@epa.gov